

APPLICATION NO. 10/633,400

Amended date:04/15/2005

Reply to Office Action of 12/01/2004

FIG 5 is a clamp to hold the acrylic core in place

No 5 ; lamp
No 10 ; clamp
No 9 ; surface of apparatus
No 14 ; nut
No 15 ; bolt
No 12 ; acrylic core

REMARKS/ARGUMENTS

With reference to U.S. Patent 3,441,957 (Friedman) cited by the Examiner in the Office Action dated 12/01/2004, Friedman uses a lighting system for a pool in which a light source and the electrical connections thereto are located a substantial distance away from any structural portion of the pool and light is conveyed to the water in the pool through an electrically non-conductive, light transmitting rod which is located between the light source and the pool wall. A housing for the light source is also provided including a reflector arrangement for passing light to the input end of the light conducting rod while conveying heat away there from.

The present invention offers additional alternatives for the distribution of such light in that the light is transmitted not only by the tip of the rod but by the rod itself. The present invention is different from Friedman '957 because Friedman uses the rod as a flashlight-like source. However, the idea of the present invention is that the whole rod can be submerged in the water and not in the ground to give off not an emission of light but a line of light that is created by the rod for making make shapes, words and figures inside of the pool, ice rink, etc.

According U.S. Patent 5,799,124 to Zorn (1998), Zorn relates to the use of liquid light guides for the distribution of light for decorative and specialized purposes and a transparent liquid core filling the tube that has an index of refraction, however, there are limitations because there is a better way to handle the light by some different angle of curve of the letters or drawings.

The present invention offers a better way to makes a sign letter. The method for creating Aquatic Neon Sign is, first making letters as signs with an acrylic polymer core mast. This is durable not flexible plastic; everybody knows that the heat durable acrylic core changes character as flexible acrylic core. When finished with the sign letter works, and second, translucent liquid is applied over it for guide light. Third, we add the outer cladding by synthetic resin. With resin, creating a different style and size of Aquatic Neon Signs is feasible such as circle styles, triangle styles, cube styles, etc.

Inside of the apparatus, there is a color wheel, a motor, and a battery. In addition, the color wheel turns to give variable colors, through the illuminate passing by it. This makes different colors, each 10 seconds long, by a small motor. Naturally, the motor is functioned by a small battery. The numerous advantages of the invention that are achieved will be more readily understood from the following description of the drawings

This invention focused to sign letters underwater. However, my invention is not only for underwater but also inside ice, inside of resin and the air. The aquatic neon sign can withstand temperatures ranging from - 40 to + 80 degrees Celsius and exhibits good chemical resistance, making it suitable for installation in demanding applications.

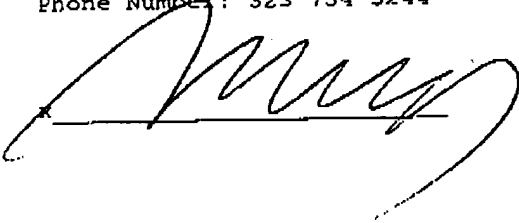
The Apparatus, according to claim 1, states the series of the multicolor apparatus filter has one to six lenses depending on use.

If six lenses are used, the appearance of six different colored letters is changeable every 10 seconds and if only one lens is used, appearance of one colored letter is changeable every 10 seconds.

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A handwritten signature in black ink, appearing to read 'Jong Koo Kim', is written over a horizontal line.